

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Timothy J. Rust

GENERAL INFORMATION:

Name:	Bluegrass Generating Company, LLC
Address:	3095 Commerce Parkway Lagrange, KY 40031
Date application received:	October 25, 2005
SIC/Source description:	4911, Electric Services
Source ID #:	21-185-00036
Source A.I. #:	39541
Activity #:	APE20050002
Permit number:	V-05-080

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☒ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☒ Area is non-attainment (list pollutants): Ozone

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)**	Potential (tpy)**
PM/PM ₁₀	0.003	26.09
SO ₂	0.0003	2.81
NO _x	0.029	239.04
CO	0.121	1089.72
VOC	0.004	26.45
Formaldehyde	0.0004	3.31
Source wide HAPs	0.0004	3.31

**Actual and Potential Emissions listed from 2004 Emissions Inventory

SOURCE DESCRIPTION:

Bluegrass Generating Company, Inc. has applied to the Division for Air Quality for the renewal of their Title V and Acid Rain permits (V-00-052) for the operation of three existing gas fired simple cycle combustion turbines for peak electric generation located in Oldham County, Kentucky. The facility has three (3) Siemens-Westinghouse 501FD natural gas fired simple cycle combustion turbines, Emission Units 01 thru 03, and one Gas Tech Model #2133, 5 mmBtu/hr natural gas Heater, Emission Unit 04. Each of the combustion turbines are rated at 2076 mmBtu/hr heat input capacity at 208 MW output and are equipped with Dry-Low NO_x burners and water injection. Additionally EU01 and EU02 are equipped with Hot Selective Catalytic Reduction (SCR) Units that may be utilized by the Company at their discretion for added NO_x control. This facility is classified as a synthetic minor due to its federally enforceable limits on emissions of Nitrogen Oxides (NO_x) and Carbon Monoxide (CO).

The Division received a Title V renewal application on 10/25/2005, an Acid Rain renewal application on 04/13/2005, and a NO_x budget application on 07/16/2003. No changes to the facility or operation have occurred since issuance of permit V-00-052. The Division will issue a Synthetic Minor/Title V Renewal Permit as # V-05-080 to include the Acid Rain Renewal Permit and the NO_x Budget Permit.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

The permit and source is a synthetic minor because potential emissions of greater than 250 tons per year are possible without the emissions cap in place for nitrogen oxides and carbon monoxide. The permittee has agreed to a source-wide emissions cap of 95 tons per year and 245 tons per year for both nitrogen oxides and carbon monoxide respectively to preclude 401 KAR 51:017, Prevention of significant deterioration of air quality (PSD) for all combustion turbines, natural gas heater, and insignificant activities, based on any 12 consecutive months. The permittee will assure compliance

EMISSION AND OPERATING CAPS DESCRIPTION (CONTINUED):

for each pollutant with use of continuous emission monitors and calculation procedures based on EPA methods to convert combustion turbine monitored concentrations to mass per unit time emission levels. In addition, there will be weekly monitoring of the hours of operation of each combustion turbine, monthly monitoring of hours of operation for the gas heater, and monthly tracking and totaling emissions on a rolling basis. Hazardous air pollutant (HAP) emissions are estimated to be less than 10 tons/year of a single HAP, and less than 25 tons/year of any combination of HAPs. To maintain the emissions caps for nitrogen oxides and carbon monoxide, operating hours for all turbines shall not exceed 4757 hours during any consecutive twelve (12) month total. The permittee may assure compliance by calculating HAP emissions and tracking and totaling emissions assuring Title V thresholds are not exceeded. For the acid rain permit, the number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).